

Atty. Docket No. OPP031367US  
Serial No: 10/728,706

Amendments to the Claims

Please amend claim 1, cancel claim 19, and add new claims 21-22, as follows:

1. (Currently Amended) A method for fabricating a metal line of a semiconductor device, comprising the steps of:
  - a) forming an insulation layer on a semiconductor substrate on which devices or lower lines are formed;
  - b) forming a metal layer on the insulation layer;
  - c) forming a photoresist pattern having an opening of less than or equal to 0.26  $\mu\text{m}$  certain-width on the metal layer, wherein said photoresist has a thickness of less than 9000  $\text{\AA}$ ;
  - d) forming a buffer layer on the photoresist pattern, including in the opening; and
  - e) selectively removing the metal layer at a lower side of the opening by dry etching to form a plurality of metal lines such that a dimension between adjacent metal lines is less than said certain width of said opening.
2. (Original) The method of claim 1, further comprising a step of forming an organic anti-reflection coating between the metal layer and the photoresist pattern.
3. (Previously Presented) The method of claim 2, wherein the buffer layer comprises an oxide film of PE family.
4. (Previously Presented) The method of claim 3, wherein the buffer layer has a thickness of 180 to 230 $\text{\AA}$ .
5. (Previously Presented) The method of claim 4, wherein the metal layer comprises a lower metal layer, an intermediate metal layer and an upper metal layer.

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6. (Previously Presented) The method of claim 5, wherein the lower metal layer comprises TiN/Ti.
7. (Previously Presented) The method of claim 6, wherein the lower metal layer functions as a barrier layer.
8. (Previously Presented) The method of claim 5, wherein the intermediate metal layer comprises Al-Cu alloy.
9. (Previously Presented) The method of claim 5, wherein the upper metal layer comprises TiN/Ti.
10. (Previously Presented) The method of claim 9, wherein the upper metal layer functions as a capping layer.
11. (Previously Presented) The method of claim 3, wherein the dry etching process is performed by a plasma etching using  $Cl_2/BCl_3$  gases.
12. (Previously Presented) The method of claim 11, wherein the metal layer comprises a lower metal layer, an intermediate metal layer and an upper metal layer.
13. (Previously Presented) The method of claim 12, wherein the lower metal layer comprises TiN/Ti.
14. (Previously Presented) The method of claim 13, wherein the lower metal layer functions as a barrier layer.
15. (Previously Presented) The method of claim 12, wherein the intermediate metal layer comprises Al-Cu alloy.

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16. (Previously Presented) The method of claim 12, wherein the upper metal layer comprises TiN/Ti.
17. (Previously Presented) The method of claim 16, wherein the upper metal layer functions as a capping layer.
18. (Previously Presented) The method of claim 1, wherein said dimension between said adjacent metal lines is less than said certain width of said opening by two times a thickness of said buffer layer at a sidewall of said opening.
19. (Canceled)
20. (Previously Presented) The method of claim 1, wherein a ratio of said photoresist thickness to said certain width of said opening is less than about 3.5.
21. (New) The method of claim 1, wherein the dimension between adjacent metal lines is less than 0.23  $\mu\text{m}$ .
22. (New) A method for fabricating a metal line of a semiconductor device, comprising the steps of:
  - a) forming an insulation layer on a semiconductor substrate on which devices or lower lines are formed;
  - b) forming a metal layer on the insulation layer;
  - c) forming a photoresist pattern having an opening of a certain width on the metal layer, wherein said photoresist has a thickness of less than 9000 Å and a ratio of said photoresist thickness to said certain width of said opening is less than about 3.5;
  - d) forming a buffer layer on the photoresist pattern, including in the opening; and

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- e) selectively removing the metal layer at a lower side of the opening by dry etching to form a plurality of metal lines such that a dimension between adjacent metal lines is less than said certain width of said opening.